

WHAT IS CLAIMED IS:

1. A method for manufacturing a semiconductor laser device, comprising the steps of:

5 (a) sequentially forming a first conductive-type clad layer, an active layer, and a second conductive-type clad layer, on a first conductive-type semiconductor substrate;

(b) forming a ridge structure by selectively etching the second conductive-type clad layer;

10 (c) forming a current blocking layer around the ridge structure, said current blocking layer having protrusions on the upper surface thereof adjacent to the ridge structure, and an amorphous and/or polycrystalline layer on a partial area thereof;

15 (d) wet-etching the upper surface of the current blocking layer, so that at least the amorphous and/or polycrystalline layer is removed from the current blocking layer and the protrusions are reduced in size; and

20 (e) forming a second conductive-type contact layer on the upper surface of the current blocking layer.

2. The method as set forth in claim 1,
wherein an upper surface of the second conductive-type clad layer is a {100} plane, and an inclined surface of the

ridge structure of the second conductive-type clad layer is near to a {111} plane.

3. The method as set forth in claim 1;

5 wherein the step (b) includes:

(b-1) forming a mask at a partial are of an upper surface of the second conductive-type clad layer; and

(b-2) etching the second conductive-type clad layer so that the ridge structure is formed at the area of the mask.

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4. The method as set forth in claim 3,

wherein the step (d) includes the step of wet-etching the upper surface of the current blocking layer after the mask is removed.

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5. The method as set forth in claim 1,

wherein the current blocking layer is made of a first conductive-type AlGaAs/GaAs material.

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6. The method as set forth in claim 5,

wherein the step (d) includes the step of wet-etching the upper surface of the current blocking layer using an EG-group etchant.